

What is claimed is:

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1. A mat for decreasing musculoskeletal fatigue in humans during prolonged static postural stress comprising one or more layers of an air bubble shaped closed cellular material and one or more layers selected from the group of materials consisting of closed cellular polyethylene foam and closed cellular polypropylene foam materials.

2. The mat of claim 1 wherein said air bubble shaped closed cellular material is an anti-static air bubble shaped closed cellular material.

3. The mat of claim 1 comprising at least two layers of said air bubble shaped closed cellular material and wherein each of said bubble layers has a flat side and a bubble side.

4. The mat of claim 3 wherein said bubble side of one of said layers of air bubble shaped closed cellular material is positioned to face said bubble side of another of said layers of air bubble shaped closed cellular material.

5. The mat of claim 4 wherein a layer of said closed cellular polyethylene foam material is interposed between said layers of air bubble shaped closed cellular material.

6. The mat of claim 5 further comprising a base layer including a low-tack adhesive bottom surface.

7. The mat of claim 6 wherein said base layer comprises a polyethylene carrier sheet having an upper surface and a lower surface and said low-tack adhesive is carried on said lower surface of said carrier sheet.

8. The mat of claim 7 further comprising a removable liner releasably attached to the lower surface of said low-tack adhesive.

9. The mat of claim 6 further comprising a cover layer of anti-static closed cellular polypropylene foam material.

10. The mat of claim 9 wherein said layers comprising said mat are adhered together and said mat includes a laminating adhesive between said layers to adhere said layers together.

11. The mat of claim 10 wherein said bubble layers and said polyethylene foam layer are between said base layer and said cover layer and said bubble layers and said polyethylene foam layer are dimensioned to provide said mat with a truncated pyramidal shape.

12. The mat of claim 8 wherein said bubble shaped material has less than a 10% thickness loss based on a 0.5 pounds per square inch loading over 15 days utilizing a static test method of 10" x 10" material samples, said closed cellular polyethylene foam material has a density of at least about 1.7 pounds per cubic foot and said polypropylene closed foam material has a density of at least about 0.5 pounds per cubic feet.

13. A disposable surgical mat comprising a first layer, a second layer over said first layer, a third layer over said second layer, and a fourth layer over said third layer, said first layer and said third layer each composed of an anti-static air bubble shaped closed cellular material having a flat side and a bubble side, said second layer composed of an anti-static closed cellular polyethylene foam material, and said fourth layer composed of an anti-static polypropylene closed cellular foam material.

14. The mat of claim 13 wherein said bubble side of said first layer faces said second layer and said bubble side of said third layer faces said second layer.

15. The mat of claim 14 wherein said first layer is adhered to said second layer, said second layer is adhered to said third

layer and said third layer is adhered to said fourth layer.

16. The mat of claim 15 wherein a laminating adhesive is interposed between said first and second layers, a laminating adhesive is interposed between said second and third layers, and a laminating adhesive is interposed between said third and fourth layers.

17. The mat of claim 16 further comprising a low-tack adhesive layer under said first layer.

18. The mat of claim 17 wherein said low-tack adhesive layer comprises an upper polyethylene carrier sheet facing said first layer, a low-tack adhesive carried on the bottom side of said carrier sheet and a removable liner releasably attached to said adhesive.

19. The mat of claim 17 further comprising a laminated adhesive interposed between said carrier sheet and said first layer to adhere said adhesive layer to said first layer.

20. The mat of claim 19 wherein said adhesive layer, said first layer, said second layer, said third layer and said fourth layer each has a similar shape and the dimensions of said first

layer are equal to or less than the dimensions of said adhesive layer, the dimensions of said second layer are equal to or less than the dimensions of said first layer, the dimensions of said third layer are equal to or less than the dimensions of said second layer and the dimensions of said fourth layer are equal to or greater than the dimensions of said first layer.

21. The mat of claim 20 wherein each of said layers has a rectangular shape and a respective length and width, and said length and width of said first layer is less than said respective length and width of said low-tack adhesive layer, said length and width of said second layer is less than said respective length and width of said first layer, said length and width of said third layer is less than said respective length and width of said second layer, and said length and width of said fourth layer is equal to or greater than said respective length and width of said low-tack adhesive layer.

22. A disposable surgical mat for decreasing musculoskeletal fatigue in humans during prolonged static postural stress comprising a first layer, a second layer under said first layer, and a third layer under said second layer, said first layer including an anti-static closed cellular polypropylene foam material, said second layer including an

anti-static closed cellular polyethylene foam material, and said third layer including a low tack adhesive material.

23. The mat of claim 22 further comprising a layer of an anti-static air bubble shaped closed cellular material interposed between said first layer and said second layer.

24. The mat of claim 22 further comprising a layer of an anti-static air bubble shaped closed cellular material interposed between said second layer and said third layer.

25. A disposable mat comprising a closed cellular polypropylene foam material top layer, one or more layers selected from the group of materials consisting of closed cellular polyethylene foam and air bubble shaped closed cellular materials and a bottom low tack adhesive layer.

26. The mat of claim 25 wherein at least one of said one or more layers is a layer of closed cellular polyethylene foam material.

27. The mat of claim 25 wherein at least one of said one or more layers is a layer of air bubble shaped closed cellular material.

28. The mat of claim 26 wherein said at least one or more layers further includes at least one layer of air bubble shaped closed cellular material.

29. A method for decreasing musculoskeletal fatigue in humans resulting from static postural stress in a surgical theatre during open operative procedures which method also facilitates maintaining the surgical theatre in a surgically safe environment comprising the steps of: positioning a completely disposable mat on the floor of the surgical theatre prior to or during an operative procedure; said mat comprising a layer of closed cellular polypropylene foam material and one or more layers selected from the group of materials consisting of closed cellular polyethylene foam and air bubble shaped closed cellular materials; supporting a human on said mat during a period of static postural positioning; disposing of said mat after the conclusion of the operative procedure.